

REMARKS

This responds to the Office Action mailed on September 14, 2006.

By this response, claims 1, 2, 15, 18, 22 and 23 are amended, and claims 28 and 29 were added. No claims were canceled. As a result, claims 1-8, 15-20, and 22-29 are now pending in this application. Reconsideration of this application in view of the above amendments and the following remarks is respectfully requested.

Objection to Drawings

Objection: The drawings were objected to under 37 CFR 1.83 (a) as the drawings must show every feature of the invention specified in the claims. According to the Examiner, the feature of the “first probe” as recited in claim 15 must be shown or the feature(s) canceled from the claim.

Response: The drawings do show the feature of the claim. Claim 15 recites “...a first test probe adapted to contact electrical elements in a first plane of a device under test; and a second test probe, the second test probe further comprising: an element having a surface for contacting a first plane of the device under test; and a probe having a free end positioned in a second plane adapted to contact an electrical element in the second plane of the device under test.” FIG. 4 of the instant patent application every element of claim 15. Referring to FIG. 4, the first probe corresponds to one of the contacts 410, 412, 414, 416, 418, 420 or 422. One of the contacts may be selected to be the first probe. The first probe is adapted to contact a portion of the device under test on a first plane. The second probe of claim 15 corresponds to the test device 200 which includes:

“The test device has a housing 210 which encloses an annular base 220 at one end and an annular element 212 at the other end of the test device. The housing 210 has an intermediate portion 214, which is frusto-conically shaped, since the annular base 220 has a diameter which is larger than the diameter of the annular element 212. The annular base 220 includes a contact surface 222. The contact surface 222 includes a plurality of peaks 224 and valleys 226.” (See page 4, lines 9-14 of the specification).

The specification also includes support for the first test probe adapted to contact electrical contacts in a first plane of a device under test, and the second test probe with an element having a surface for contacting a first plane of the device under test when it states that:

“The contactors 410, 412, 414, 416, 418, 420, and 422 have surfaces which are essentially coplanar with the peaks 224 of the contact surface 222.”
(See page 5, lines 26-28 of the specification).

Thus, the drawings show the features of the claim the Examiner indicated were not shown. The only feature not shown in FIG. 4 is at least one contact on a device under test. FIG. 5 includes a pad 622 which is an annular pad or contact or element. Therefore, the figures show every element of the claim. It should be noted that this is not new matter since the electrical elements of the device under test in the first plane were claimed in the application as originally filed. The claims as filed are part of the original specification. The Examiner's objection to the drawings is overcome since the drawings already show every element of the claim.

Objection of the Claims

Objection: In paragraph 2 of the Office Action dated September 14, 2006, claims 18-20 were objected to due to informalities set forth by the Examiner. Specifically, claim 18 was objected to since, according to the Examiner, “...it is unclear how first pad and second pad are interconnected with the printed circuit board and the electrical component. Furthermore, it is unclear how the probes are interrelated with the contact steps.” The Examiner indicated that claims 19-20 share the same indefiniteness with claim 18.

Response: Claims 18-20 were indicated as being allowable (see paragraph 5 on page 1 of the Office Action, and paragraph 9 of the Office Action dated September 14, 2006). Claim 18 has been amended to overcome the objections to the claim without removing elements. Specifically, the first and second pads are associated with a device under test and specifically with two different planes associated with the device under test. The device under test is a circuit board with at least one electrical component attached to the primary side of the device under test. As set forth in claim 18, the first pad and the second pad contacted with a probe that includes a portion that passes through an opening in the circuit board to contact the electrical component

attached to the primary side of the circuit board. As a result of the amendment, claim 18 now overcomes the objection. Claims 19-20 shared the the indefiniteness of claim 18 and therefore, now also overcome the Examiner's objection.

§112 Rejection of the Claims

Rejection: In paragraph 3 of the Office Action dated September 14, 2006, claims 15-17 and 22 were rejected under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, claim 15 was rejected since, according to the Examiner, "...it is unclear what 'a first probe' and 'electrical elements' comprise of." Claim 22 was rejected since, according to the Examiner, "...it is unclear how 'a printed circuit board' and 'a component' are interrelated and associated with 'a device under test' in claim 15. Furthermore, it is unclear whether the printed circuit board and the component are parts of the fixture or they are parts of the electrical device."

Response: Claim 15 has been amended to overcome the Examiner's rejection. Claim 15 now recites "...electrical contacts in a first plane of a device under test". Thus, claim 15 now clearly sets forth the relationship of the probe in the testing device and the contact associated with a device under test. Accordingly, claim 15 now overcomes the Examiner's objection. In addition, the second probe has been amended so as to include a free end as one of the elements of the second probe to further eliminate indefinite language. Claims 16 and 17 depend from claim 15 and now also overcome the Examiner's rejection under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

In addition, the first probe and the second probe are shown in FIG. 4 as set forth in detail in the section labeled "Objection to the Drawings" set forth earlier in these remarks.

The rejection of claim 22 referenced claim 15. First of all, it is assumed that although the rejection discussed claim 15 (see paragraph 3 of the Office Action dated 9/14/06), the Examiner's rejection is directed solely at claim 22 since claim 15 fails to even mention a printed

circuit board and the like. Accordingly, claim 22 has been amended to overcome the Examiner's objection. Claim 22 has been amended to clearly set forth the relationship between the component, the pad on the component and the printed circuit board and therefore now overcomes the Examiner's rejection. As a result, claim 22 now overcomes the Examiner's rejection under 35 USC § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

§102 Rejection of the Claims

A. Rejection under 35 USC § 102: Claims 1-6 were rejected under 35 USC § 102(b) as being anticipated by Beck et al. (U.S. 4,138,643).

B. Response to 35 USC § 102 Rejection: Anticipation requires the disclosure in a single prior art reference of each element of the claim under consideration. *In re Dillon* 919 F.2d 688, 16 USPQ 2d 1897, 1908 (Fed. Cir. 1990) (en banc), cert. denied, 500 U.S. 904 (1991). It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, "[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*" *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added).

Claim 1, as amended, now recites "...an element having a surface for electrically contacting a contact associated with a secondary side of a device under test; and a probe having a free end positioned for electrically contacting a contact associated with a primary side of the device under test." In the Beck et al. reference there is an element 90 which contacts a first contact or solder bump on the secondary side of the device under test. The probe 24 also contacts another contact or solder bump on the secondary side of the device under test. Both the element and the probe contact solder bumps on the same side of the device under test. The claim fails to meet the language of claim 1 as now recited since the probe does not contact a contact associated with the primary side of the device under test while also contacting a contact

associated with the secondary side of the device under test. In each of the figures in the Beck et al. reference the probe contacts just one side of the device under test. The probe does not contact both a secondary side and a primary side of the device under test. As a result, claim 1 now overcomes the Examiner's rejection under 35 USC § 102(b) as being anticipated by Beck et al. (U.S. 4,138,643).

Claims 2-6 depend from claim 1 and include the limitations of claim 1 by their dependency. Since the Beck et al. reference fails to teach each and every element of the invention, and also fails to teach all the elements arranged as in the claims, it is submitted that claims 2-6 now also overcome the Examiner's rejection under 35 USC § 102(b) as being anticipated by Beck et al. (U.S. 4,138,643).

§103 Rejection of the Claims

A. Rejection: Claims 23-27 were rejected under 35 USC § 103(a) as being unpatentable over Beck et al. (U.S. 4,138,643) in view of Boll (U.S. 4,871,964).

B. Response: In order for the Examiner to establish a prima facie case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference or references must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. M.P.E.P. § 2142 (citing *In re Vaack*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)).

Claim 23 recites "...contacting a plurality of pads located in a first plane on the device under test; and contacting at least one other pad in a second plane on the device under test substantially simultaneously as contacting the plurality of pads located in the second plane, at least one of the pads in the first or second plane contacted by extending an element through the device under test." The Beck et al. reference fails to teach contacting a plurality of pads in the

first plane on the device under test, and contacting at least one other pad in a second plane substantially simultaneously where at least one of the pads in the first or second plane contacted by extending an element through the device under test. Boll et al. also fails to show such an arrangement. Neither reference teaches or suggests contacting at least one of the pads in the first or second plane by extending an element through the device under test. Simply put, the combination set forth by the Examiner fails to teach or suggest the elements of the claim as now amended. Furthermore, there is no teaching or suggestion from either reference to now include such an element. Accordingly, claim 23 now overcomes the Examiner's rejection under 35 USC § 103(a) as being unpatentable over Beck et al. (U.S. 4,138,643) in view of Boll(U.S. 4,871,964).

Claims 24-27 depend from claim 23 and include the limitations of claim 23 by their dependency. As a result, claims 24-27 now also overcome the Examiner's rejection under 35 USC § 103(a) as being unpatentable over Beck et al. (U.S. 4,138,643) in view of Boll(U.S. 4,871,964) for the same reasons as set forth above with respect to claim 23.

Allowable Subject Matter

Claims 7-8 were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 7-8 were not amended to allowable form since they now depend from currently amended claim 1. Claims 28-29 have been added. Claim 28 is claim 7 placed in independent form including all the limitations of the base claim (claim 1) and any intervening claims (claim 6). Claim 8 depends from claim 7 so newly added claim 29 depends on claim 29. Therefore, claims 28 and 29 are claims 7 and 8 amended to overcome the Examiner's objection.;

Claims 18-20 were allowed with appreciation.

Conclusion

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney ((612) 373-6977) to facilitate prosecution of this application.


If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

RICHARD S PERRY

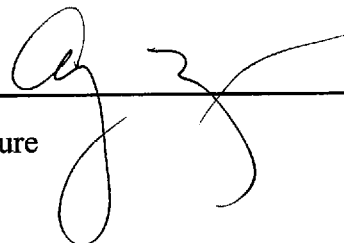
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